



Michael Arbus

LONDON INVESTMENT PARTNERS

London Investment Partners that maintains interests in 2 oil shale resource properties and a surface retort technology company.

Our target portfolio focuses on geographies where local **Governments are supportive** of project development, and where **security of foreign investment capital** is high and/or improving.

We believe that sharing expertise with local partnerships is the key to successful project development.

We do not book reserves

WE ADVANCE PROJECTS



LONDON INVESTMENT PARTNERS

Our interests can be segmented into 4 core areas:



Exploration	Developing Projects	Process Engineering	Advanced Projects
Early indications of oil bearing rock	Resource evaluation work in process	Conceptual study completed	Post feasibility, pre-construction
Limited historic drilling	Completed feasibility study	Pilot in construction	Mine and plant in construction
Advanced drilling completed	Process and acreage study complete	Completed pilot, in need of resource	In production, pre-expansion

We invite discussion with Governments, land holders, and technology providers looking to partner on project development.

GOSH APPROACH – EVOLUTION OF INVESTOR BASE

It is not the strongest of the species that survive, nor the most intelligent, but the ones most responsive to change. (Charles Darwin)



Initial Work:

- Seed money and early stage financing

Resource and Reserves Confirmation:

- Early-stage mining and energy Investors
- High net worth

Post-Definition, Early Engineering and Feasibility:

- Mid-sized resource investing institutions
- Partnerships targeted

Post-Plant Design plant design, successful pilot and resource definition:

- Debt and equity sourced from Bank and Government programs
- Partnership completed

Initial and subsequent construction / development:

Multiple tranches of Bank financing:

- Post pilot and feasibility work
- Construction
- Working capital start-up

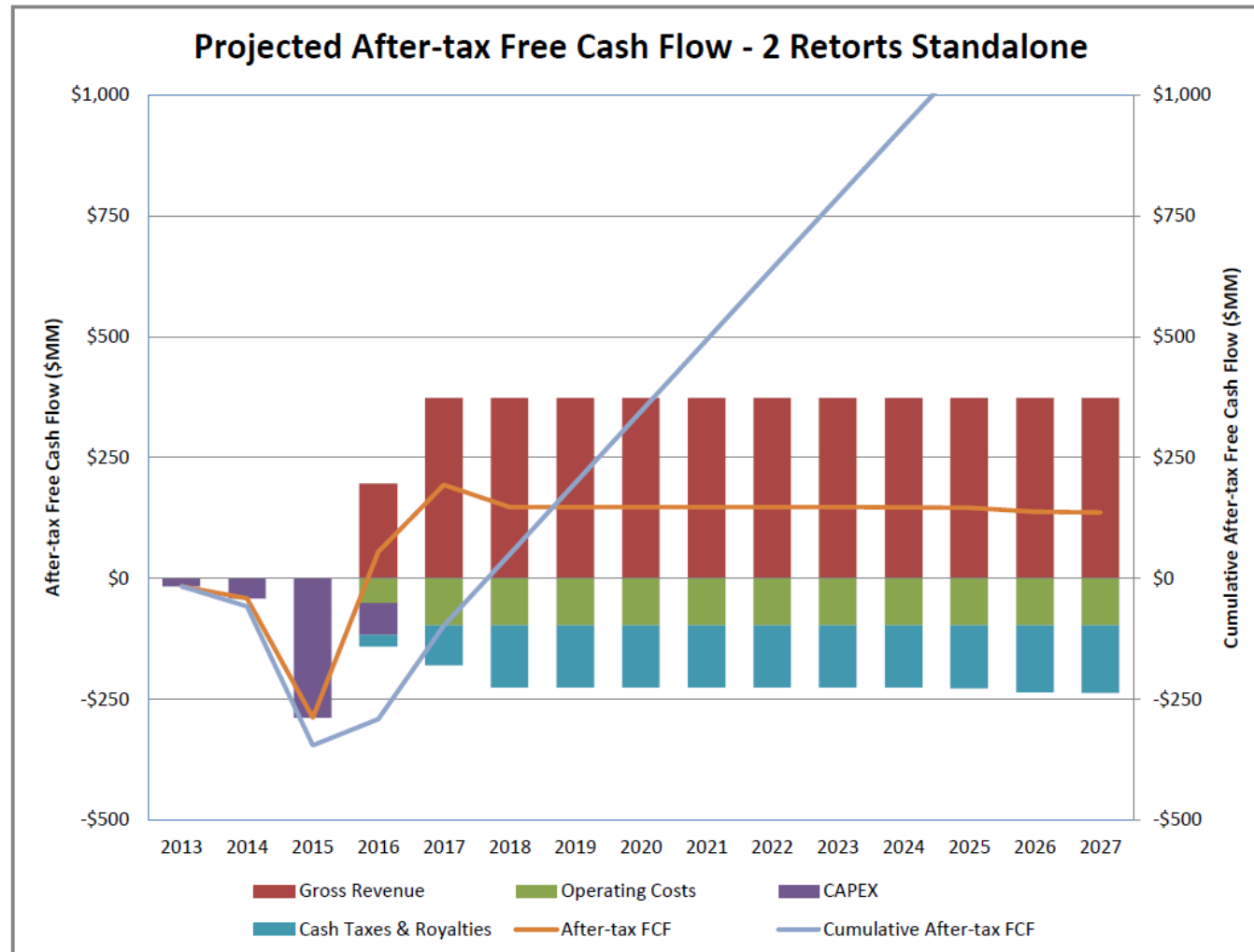
The investor base will change with project de-risking

EXAMPLE: FINANCING AN OIL SHALE PROJECT

Irati Energia - Brazil



IRATI ENERGY FINANCIAL MODEL SUMMARY



EXAMPLE: FINANCING AN OIL SHALE PROJECT

Irati Energia - Brazil



(US\$MM)	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Gross Revenue	0	0	0	196	373	373	373	373	373	373	373	373	373	373	373
Operating Costs	0	0	0	-51	-97	-97	-97	-97	-97	-97	-97	-97	-97	-97	-97
EBITDA	0	0	0	145	276	276	276	276	276	276	276	276	276	276	276
CAPEX	-16	-41	-288	-66	0	0	0	0	0	0	0	0	0	0	0
Taxes & Royalties	0	0	0	-25	-83	-128	-128	-128	-128	-128	-128	-129	-130	-138	-140
After-tax FCF	-16	-41	-288	55	193	148	148	148	148	148	148	147	146	138	136
Cum After-tax FCI	-16	-58	-346	-291	-98	50	198	345	493	640	788	935	1,081	1,219	1,355

SENSITIVITIES

		DISCOUNT RATE (%)				
IRATI CRUDE (USD/BBL)	NPV	8%	10%	12%	14%	16%
	\$140	1,300	994	770	604	477
	\$130	1,175	895	690	538	422
	\$120	1,050	796	610	472	367
	\$110	926	697	530	406	312
	\$100	801	598	449	339	256
	\$90	676	499	369	273	201
	\$80	552	400	289	207	146

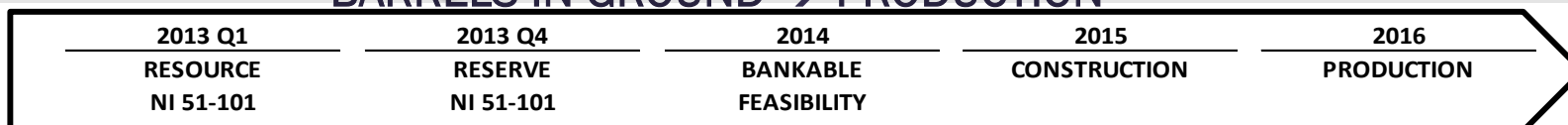
		CAPEX (%)				
IRATI CRUDE (USD/BBL)	NPV	-10%	0%	10%	20%	30%
	\$140	790	770	751	731	711
	\$130	710	690	670	651	631
	\$120	630	610	590	571	551
	\$110	549	530	510	490	471
	\$100	469	449	430	410	390
	\$90	389	369	350	330	310
	\$80	309	289	269	250	230

		CAPEX (%)				
DISCOUNT RATE (%)	NPV	-10%	0%	10%	20%	30%
	14%	425	406	386	367	348
	13%	483	463	444	424	405
	12%	549	530	510	490	471
	11%	627	607	587	567	547
	10%	717	697	677	657	637
	9%	822	802	782	762	741
	8%	946	926	906	885	865

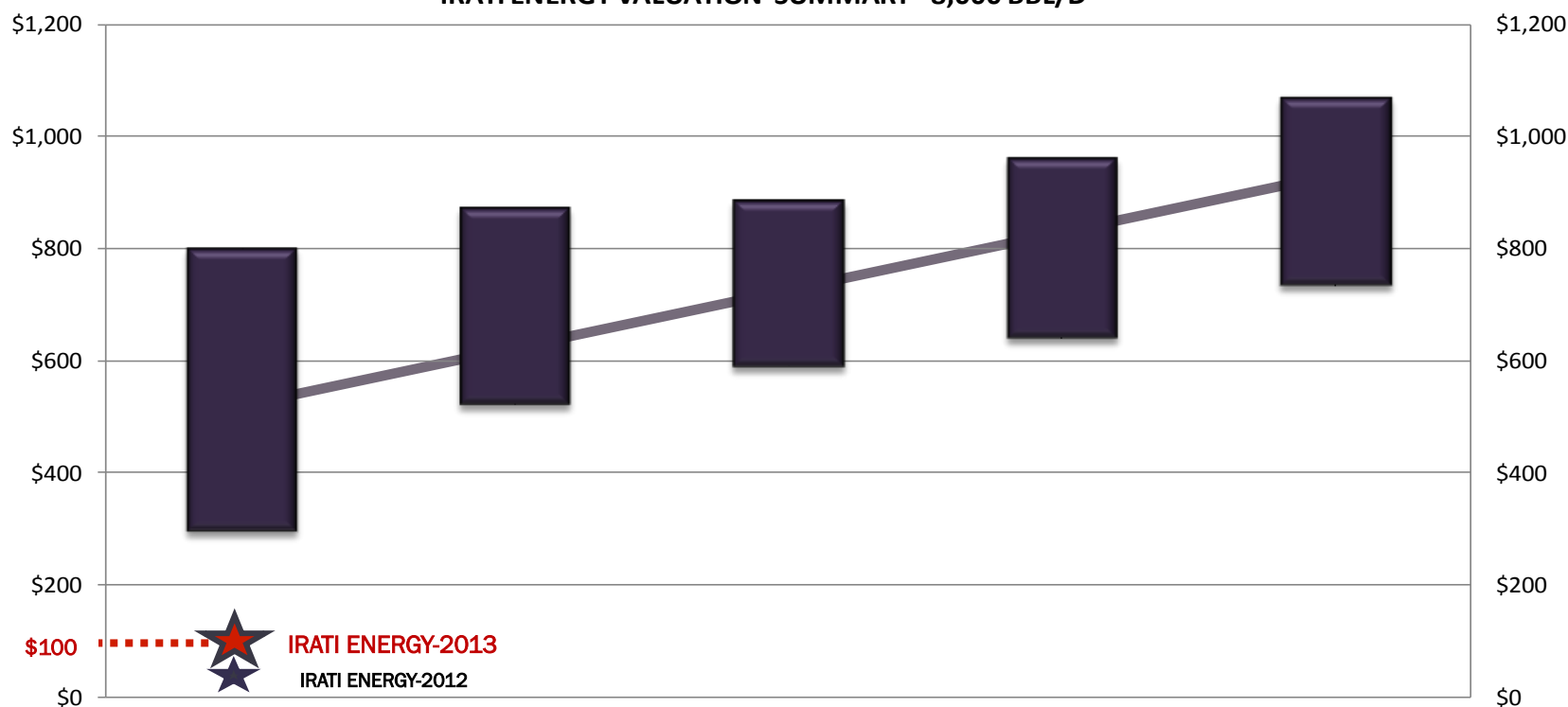
		CAPEX (%)				
IRATI CRUDE (USD/BBL)	IRR	-10%	0%	10%	20%	30%
	\$140	48%	44%	41%	38%	36%
	\$130	45%	41%	38%	36%	33%
	\$120	42%	38%	35%	33%	31%
	\$110	38%	35%	33%	30%	29%
	\$100	35%	32%	30%	28%	26%
	\$90	31%	29%	27%	25%	23%
	\$80	28%	26%	24%	22%	21%

Market Valuation Improves As Project De-Risks

BARRRELS IN GROUND → PRODUCTION



IRATI ENERGY VALUATION SUMMARY - 8,000 BBL/D



	EV/BBL		P/NAV		EV/DACF		EV / BOED		CURRENT YIELD	
	Low	High	Low	High	Low	High	Low	High	Low	High
Valuation Range	\$0.30	\$0.80	0.75x	1.25x	4.0x	6.0x	\$80k	\$120k	8%	6%
Value	1,000 mln bbl		\$697 mln NAV10		\$148 mln		8,000 boe		\$84 mln / 70% payout	
Est. Equity Value (\$MM)	\$300	\$800	\$523	\$871	\$590	\$885	\$640	\$960	\$734	\$1,068

Source: Internal company estimates

LESSONS FROM THE CANADIAN OILSANDS

R&D HOLDING PERIOD

- BOOM -
RECOGNITION

SENIOR CATCH-UP

PRIOR TO THE EARLY 2000s:

Oil Sands reserves were held predominately by Senior E&P companies; either as unbooked resource potential or within R&D divisions. Production rates were low, as was International Oil Company interest.

EARLY 2000s – THE ASSET CLASS IS BORN:

Single-asset oil sands land holders began to explore, prove resource barrels in the ground through drilling, and listed their companies on public exchange. In this era, many chose to list without a longer-term capital Partner. The stock markets began to assign value to oil sands barrel “in the ground”. This led to heightened spending and production growth.

2005 → TODAY – SENIOR INTERNATIONAL E&P CATCH-UP BEGINS – M&A ACTIVITY INCREASES:

Multiple transactions occurred where Senior Oil companies began to invest in the sector.

YEAR	# DEALS	TOTAL VALUE (CAD\$)	BUYERS INCLUDED
2005	6	\$2.7bln	Petro-Canada, CNOOC, Sinopec, Total, Teck-Cominco
2006	4	\$6.2bln	Shell, KNOC, ConocoPhillips
2007	8	\$14.5bln	Teck-Cominco, Statoil, Marathon
2008	5	\$1.7bln	Occidental, Nexen
2009	2	\$11.5bln	Suncor (Petro-Canada merger), PetroChina
2010	10	\$9.7bln	Devon, BP, Sinopec, Total, Canadian Natural (CNQ)
2011	2	\$110mln	Small late-stage consolidation
2012	3	\$1.3bln	PetroChina, Teck-Cominco

SENIORS E&P WILL NEED OIL SHALE RESERVES – JUST LIKE OIL SANDS 8

RECENT LESSONS FROM ASIAN PARTNERSHIPS

OILSANDS 2.0 – SECURE A PARTNER AFTER DEFINING YOUR RESERVES

ATHABASCA OIL SANDS

THE EVENTS:

On April 8, 2010, Athabasca Oil Sands listed on the Toronto Stock Exchange.

The company listed after entering into a JV with PetroChina

JV DETAILS:

PetroChina took 60% interest in 2 of Athabasca Oil Sands projects in exchange for **\$1.9bln.**

- PetroChina maintained the right to **acquire** the balance 40% of the project from Athabasca under certain conditions
- Athabasca maintained the right to **sell** the balance 40% of the project to PetroChina under certain conditions

TEACHINGS:

Early Partnership benefits:

- Athabasca listed on the public stock exchange with \$1.9bln in cash from the JV,
- a highly regarded partner in PetroChina,
- and a “put option” to sell the balance of their JV interest to PetroChina at a pre-determined price.

This JV provided Athabasca with capital to advance the other non-JV assets in their portfolio, and de-risked the long-term finance risk for shareholders.

RECENT LESSONS FROM ASIAN PARTNERSHIPS

SHAREHOLDER INTERESTS DICTATE THE STOCK MARKET – NOT THE LOCATION OF THE ASSET

SUNSHINE OILSANDS

THE EVENTS:

On March 1, 2011, Sunshine Oil Sands listed on the Hong Kong exchange, although all of the assets of the company are in Canada.

WHY HONG KONG?

- **MOU with Sinopec:** Memorandum of Understanding for Strategic Cooperation was established with Sinopec
- **Key Asian Shareholders:** The company had an investor base including prominent Chinese investors such as China Life, BOCGI, Orient and Cross-Strait.

ASSET SUMMARY:

- ☞ A combination of traditional in situ oil sands, carbonates and heavy oil property.
- ☞ 464,897 hectares of Oil Sands Leases
- ☞ Undeveloped: ~400mln barrels of 2P reserves / Developed: 1,800 bbl/d heavy oil production

TEACHINGS:

Early stage oil projects, with heavy up-front capital needs should leverage International capital markets
Don't limit your capital sources to the local geography



Michael Arbus